DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-013751 Address: 333 Burma Road **Date Inspected:** 12-Mar-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Xu Le Feng No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component: Tower Components**

Summary of Items Observed:

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY 10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005324

Ultrasonic Testing (UT)

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

NORTH TOWER LIFT 4 BC CORNER

1. NSTL4 - 3B/L - 5A/B

2. NSTL4 - 3L/L - 3A/B

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW):

Repair welding of a weld joint # 2A according to the weld repair report #T-WR-3068 located on North Tower Lift 4 D/E Corner. Welder is identified as 500363. ZPMC Quality Control (QC) Inspector is identified as Wang Hao. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 2G (2F) – FCM –

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Repair.

(See attached photo)

Flux Core Arc Welding (FCAW):

Weld joint # 62 located on North Tower Lift-4 B/C Corner Triangular Plate NSTL4 – 3K/L. Welder is identified as 066165. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2133.

Weld joint #74 located on North Tower Lift-4 C/D Corner Triangular Plate NSTL4 – 3K/L. Welder is identified as 067876. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2133.

BAY 11

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005319

Ultrasonic Testing (UT)

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

WEST TOWER LIFT 4 BC CORNER

- 1. WSTL4 2B/L 58A/B
- 2. WSTL4 2L/L 3A/B

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW):

Weld joint # 2B located on West Tower Lift-5 C/D Corner WSD1 – TL5–4B/F. Welder is identified as 041271. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3212 - Tc - U4b - 1.

Weld joint # 37B located on West Tower Lift-5 B/C Corner WD1 – TL5–4B/F. Welder is identified as 046704. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3212 - Tc - U4b - 1.

Sub-Merged Arc Welding (SAW):

Weld joint #7-1B located on Strut Connection Plate ND1 – SA4 – 68 – 143. Welder is identified as 042915. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS -B - T - 3221 - Tc - U5 - S - 1. (See attached photo)

Weld joint # 1-21B located on Strut Plate SD1 – STSA4 – 5 – 131. Welder is identified as 044560. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS -B - T - 4221 - B - U3c - S - 1.

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest - 15000422360, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar, Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer